

**E1 - K102120\_Summary\_052511**

AUG 12 2011

**Hsiner Company NIPPV Masks 510(k) Submission****8. 510(k) Summary**

Date: 03 November 2010

In accordance with 21 CFR section 807.92 Hsiner is submitting the following 510(k) summary.

**8.1. Submitter Information**

Hsiner Company, LTD  
No. 13, Tyan Shin St., Taya Hsiang  
Taichung Hsien, Taiwan, ROC

Phone: +886-4-25664306  
FAX: +

Registration No.: 3003862188  
Owner/Operator No.: 9053474

**8.2. Name of Device**

Proprietary Name: NIPPV Masks  
Common Name: Non-invasive Ventilation Mask  
Classification Name: Ventilator, Continuous, Facility Use  
Product Code: CBK  
Regulation Number: 868.5895  
Device Class: 2

**8.3. Description of the device**

Hsiner's NIPPV Masks are intended to provide a patient interface between a conventional mechanical ventilator system and the patient for applications of non-invasive ventilation. The connection to the ventilator utilizes standard 22mm conical connections complying with ISO 5356-1. The interface with the patient's facial contours utilizes a soft, pliable seal that ensures that a good seal is achieved to deliver the pressurized gasses with minimal unintentional leakage. Unintentional gas leak around the face is minimized by the shaping of the mask base to improve the closeness of fit to the skin. Soft, elastic headgear insures a tight comfortable fit against the face.

The Hsiner NIPPV Masks are modifications to their CPAP/VPAP Masks (K063268). These masks differ from the CPAP/VPAP mask only in that the vents and anti-asphyxiation valves have been removed.

**8.4. Substantially equivalent to:**

- Hsiner's CPAP/VPAP Masks (K063268)
- Fisher Paykel RT041 Hospital Full Face Mask Non Vented (K083122)

**8.5. Intended Use of the Device**

The Hsiner NIPPV masks provide a patient interface for application of noninvasive ventilation with ventilators with adequate alarms and safety systems to protect the patient in the event of ventilator failure. These masks are intended for use with spontaneous breathing adult patients (> 30 kg) to administer CPAP or positive pressure ventilation for treatment of respiratory failure.

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respiratory insufficiency, or obstructive sleep apnea who are appropriate candidates for noninvasive ventilation, in the hospital/institutional environment.

Hsiner's Nasal Mask is intended for patients that have trouble tolerating their full face versions

**8.6. Clinical-Performance Evaluations**

No clinical test was performed for this device

**8.7. Comparison to Predicate Devices****8.7.1. Design, Materials and Intended Use**

The Hsiner NIPPV masks are equivalent in design; materials and performance to the Fisher Paykel's RT041 NIV face mask (K083122) and Hsiner's CPAP/VPAP mask. The Hsiner and Fisher Paykel devices operate on the same principles and have the same intended use.

**8.8. Performance Evaluation**

The performance test protocols for Hsiner's NIPPV Masks follow those section of FDA's July 1995 guidance document "Draft Reviewer Guidance for Ventilators" applicable to masks used with ventilators and include testing from both ASTM 1100-90 "Standard Specification for Ventilators Intended for Use in Critical Care" and ISO 17510-2 (2007): "Sleep apnea breathing therapy---Part 2: Masks and application accessories."

- Resistance to flow showed negligible difference between all masks,
- Exhaust flow showed negligible differences at low pressure settings with Hsiner's NIPPV and CPA/VPAP masks showing higher flows at higher pressure levels than the Fisher Paykel RT041,
- CO<sub>2</sub> Rebreathing showed negligible differences for the Hsiner NIPPV and Fisher Paykel masks. As would be expected Hsiner's CPAP/VPAP showed slightly lower EtCO<sub>2</sub> levels,
- Fraction of Inspired Oxygen (FIO<sub>2</sub>) showed slightly higher over all FIO<sub>2</sub> percentages for the Fisher Paykel masks. All FIO<sub>2</sub> values were significantly lower with added 20 LPM leaks compared to identical configurations without leak. As expected decreasing therapeutic pressure results in higher FIO<sub>2</sub> percentages. Increasing supplemental O<sub>2</sub> flow rates resulted in significant increases in FIO<sub>2</sub>,
- Swivel leakage was notably higher for Hsiner NIPPV masks compared to the Fisher Paykel RT041 Mask.

**8.8.1. Conclusion:**

Performance evaluation concludes that there are negligible differences resistance and exhaust flow. The Hsiner masks show slightly better EtCO<sub>2</sub> and slightly lower FIO<sub>2</sub> values than the Fisher Paykel masks.



## DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room - WO66-G609  
Silver Spring, MD 20993-0002

Hsiner Company, Limited  
% Mr. Tom Shanks  
MD Ventures  
29201 Via Norte  
Temecula, California 92591

AUG 12 2011

Re: K102120

Trade/Device Name: Hsiner NIPPV Masks  
Regulation Number: 21 CFR 868.5895  
Regulation Name: Continuous Ventilator  
Regulatory Class: II  
Product Code: CBK  
Dated: July 30, 2011  
Received: August 11, 2011

Dear Mr. Shanks:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOFFICES/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Anthony D. Watson, B.S., M.S., M.B.A.  
Director  
Division of Anesthesiology, General Hospital,  
Infection Control and Dental Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

cc: DMC - 2 copies  
ODE Division/Branch ARDB – Sugato De  
8/12/11-EFW

**C1 - K102120\_Indications for Use\_052511**

Hsiner Company NIPPV Masks 510(k) Submission

**Indications for Use****510(k) Number**

Device Name: Hsiner NIPPV Masks

**Indications for Use:**

The Hsiner NIPPV masks provide a patient interface for application of noninvasive ventilation with ventilators with adequate alarms and safety systems to protect the patient in the event of ventilator failure. These masks are intended for use with spontaneously breathing adult patients (> 30 kg) with respiratory insufficiency or respiratory failure suitable for noninvasive pressure support ventilation treatment in the hospital/institutional environment (including but not limited to moderate or severe dyspnea; elevated respiratory rates, labored breathing, or paradoxical breathing).

Prescription Use X  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE):

Nayn Patel for L Schulthaus  
(Division Sign-Off)Division of Anesthesiology, General Hospital  
Infection Control, Dental Devices510(k) Number: K102120